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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,497	04/06/2007	Naoya Jami	40404.45/ko	1894

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EXAMINER

COLON SANTANA, EDUARDO

ART UNIT	PAPER NUMBER
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2837

NOTIFICATION DATE	DELIVERY MODE
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06/17/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/597,497	Applicant(s) JAMI, NAOYA	
	Examiner Eduardo Colon-Santana	Art Unit 2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 4-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/27/2006</u> . | 6) <input checked="" type="checkbox"/> Other: <u>Detailed Action</u> . |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 01/27/2004. It is noted, however, that applicant has not filed a certified copy of the 2004-019043 application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 7/27/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

3. The replacement sheets of drawings figures 4-6 were received on 7/27/2006. These replacement sheets of drawings figures are acceptable.

Nonetheless, new corrected drawing sheet for figures 1-3 in compliance with 37 CFR 1.121(d) are required in this application because the lines, numbers & letters are not uniformly thick and well defined, clean, durable, and black (poor line quality). In addition the figures have shaded lines, pale, rough and blurred. See 37 CFR 1.84(i)(m)(p). Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Specification

4. The substitute specification filed 7/27/2006 has been entered because it conform to 37 CFR 1.125(b) and (c).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable and obvious over applicants admitted prior art of figure 4 in view of Hiroshi JP 2003111481 A.

Referring to claim 4, applicant's admitted prior art of figure 4 depicts a motor drive control circuit (101) having a rotation control amplifier (113) arranged to input a peak voltage of a voltage generated in an impedance element (112), a voltage limiting reference voltage (123) and a rotation speed control voltage (SIG) arranged to

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control a rotation speed of the motor and compare the lower of the voltage limiting reference voltage and rotation speed control voltage with the peak voltage. Furthermore, applicant's admitted prior art of figure 4, depicts a synthesis circuit (117); a PWM output comparator (118) and a motor driver control circuit (106). However, applicant's admitted prior art of figure 4, does not depict a rotation limiting comparator (24) as seen in figure 1 of the application. Nonetheless, Hiroshi discloses a motor drive and driving method in which a rotation limiting comparator (see figure 7, item 21) is arranged to input and compare a voltage that is substantially equal to the voltage limit reference voltage (item 52) with a peak voltage (item 51). Since applicant's prior art and Hiroshi are in the same field of endeavor, the purpose disclosed by Hiroshi would have been recognized in the pertinent art of applicant's prior art. It would have been obvious to one of ordinary skill in the art at the time of the invention to add a rotation limiting comparator as taught by Hiroshi within the teaching of applicant's admitted prior art of figure 4, for the purpose/advantages that the motor drive control circuit can operate in a safer operation region, since the rotation limiting comparator would be used to remove the delay caused by the oscillation capacitor when an abnormality occurs (fault due to overcurrent or overvoltage). Additionally, the claim would have been obvious to one of ordinary skill in the art since all the claimed elements were known in the prior art and one skill in the art could have combined the elements as

claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results.

As to claims 6 and 7, applicant's admitted prior art of figure 4, depicts a motor driver (107) controlled by the motor drive circuit (106) and a motor (102) driven by the motor driver.

Referring to claim 5, although applicant's admitted prior art of figure 4 and Hiroshi disclose a motor apparatus (101) and (100) respectively, it would have been obvious that these circuits would be integrated on a semiconductor substrate to be part of a microcontroller or a control unit, this is well-known in the art.

Conclusion

6. The prior art made of record in form 892 and not specifically relied upon is considered pertinent to applicant's disclosure to further show the state of the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eduardo Colon-Santana whose telephone number is (571)272-2060. The examiner can normally be reached on Monday thru Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-2800 X.37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lincoln Donovan/
Supervisory Patent Examiner, Art Unit
2837

/Eduardo Colon-Santana/
Patent Examiner
Art Unit 2837

/ECS/
June 6, 2008